JENSEN HUGHES is the global leader in engineering consulting services for the built environment. We are a company of engineers, consultants, and scientists focused on evaluating risks and diligently developing the best, most cost effective solutions. We offer extensive, practical experience through countless projects, research and industry innovation.

The services we provide include fire protection systems design and analysis, code consulting, risk assessment, commissioning, forensic, environmental, security, research, development and testing services. Our global clients include a majority of Fortune 500 companies and cover the following sectors: energy, healthcare, education, hospitality, industrial, corporate real estate, transportation, government and military. We are the choice for securing the safety of people and assets.

SERVICES WE OFFER

- Fire Protection Design
- Construction Support
- Life Safety Analysis
- Code Consulting
- Fire Detection and Alarm Design
- Smoke Modeling
- Fire Hazard Analysis
- Research and Testing on Aircraft
- Hangar Suppression and Detection System Designs

NATIONAL & INTERNATIONAL RECOGNITION IN AVIATION FIRE PROTECTION

Committee participation includes the following codes:

- NFPA Aviation Section (Past Chair)
- NFPA 409 Aircraft Hangars (Secretary)
- NFPA Aircraft Rescue and Fighting
- NFPA 11 Foam Standard
- NFPA 16 Foam Water Sprinklers
- NFPA 20 Fire Pumps
- NFPA 410 Aircraft Maintenance
- NFPA 418 Helicopter Facilities
- SFPE Handbook: AFFF Design
- NFPA Handbook: Foam

JENSEN HUGHES has extensive experience in providing fire protection engineering services for unique military infrastructure, including

- Aircraft Hangars
- Aviation Engine Test Facilities (Hush Houses)
- Aircraft Production Facilities
- Airports
- Related Support Facilities

SPECIALIZED SOLUTIONS FOR AIRSIDE OPERATION SAFETY

We are the leader in applying advanced concepts to military facilities in order to save costs, reduce maintenance, and mitigate environmental impact of fire suppression system agents.

Our consultants and engineers are recognized authorities in fire and life safety engineering for the aviation industry and are aware of current trends in hangar fire protection design and environmental issues.

We apply in-depth knowledge to address the challenges that are unique to aircraft hangars that include:

- Fire Suppression and Detection System Design and Criteria
- Operation and Maintenance
- Environmental Criteria and AFFF Containment Designs
- Special Hazard Design Experience
AIRCRAFT HANGAR RESEARCH AND DEVELOPMENT

We conduct research and testing on aircraft hangar suppression and detection system designs, and can assist with fire suppression and detection system design and criteria, operation and maintenance procedures, environmental criteria and Aqueous Film-Forming Foam (AFFF) containment designs, and special hazard designs.

Because of our fire science and developmental work in military fire protection research and development, we have a clear understanding of DOD criteria (i.e., the rationale, intent, and interpretation of UFC 3-600-01 Fire Protection Engineering for Facilities and associated U.S. Air Force Engineering Technical Instructions Letters). JENSEN HUGHES helped produce these requirements for the U.S. military.

We work closely with fire protection engineers in the U.S. Air Force, U.S. Navy, and U.S. Army in applying scientific solutions to military problems.

Specialized Research and Development Experience

- Use of Plastic Pipe for Hangar AFFF Systems (USAF)
- AFFF Environmental Policy and Criteria Development for Facilities (DoD)
- Hangar Water Sprinkler Suppression Tests (USAF)
- Hangar Portable Monitor Tests (USAF)
- High Expansion Foam Drainage Tests (USAF)
- Uniform Aircraft Hangar Facilities Criteria Handbook (USAF, Navy, Army, USMC)
- Unified Fire Protection Performance Technical Specifications (Navy)
- Low-level AFFF Performance and Burnback Resistance (NAVFAC)
- Low-level AFFF Nozzle Design (NAVFAC)
- Optical Detector Tests (NAVFAC and Canadian MOD)

AQUEOUS FILM-FORMING FOAM (AFFF) AND HIGH EXPANSION (HI EX) SYSTEMS

JENSEN HUGHES has completed the fire protection designs for numerous aircraft hangars involving AFFF or Hi-Ex foam systems.

Foam systems for hangar designs have included diaphragm tanks, pumped foam proportioning systems and inductor type foam proportioning, giving us experience in designing all types of foam concentrate systems and foam discharge devices. Given the large water flow requirements of fire protection systems for aircraft hangars, many of our completed projects included extensive water supply analysis, sizing of water storage tanks and design of multiple fire pump installations.

All projects also included the design of foam releasing control systems and their integration with building fire detection and alarm systems. In some cases, sophisticated optical detection systems were employed.